

REMARKS

This document is submitted in reply to the Office Action dated August 22, 2008 (“Office Action”).

Applicant has amended claims 1 to particularly point out what he deems as his invention. Support therefor can be found in the Specification at page 6, lines 20-30. Applicant has also amended claims 5-7, 9, 11-14, 16, and 18 merely to promote clarity. Further, Applicant has added six new claims, i.e., claims 19-24, support for which appears in original claims 5, 6, 9, 11, 16, and 18, respectively. No new matter has been introduced.

Upon entry of new claims 19-24, claims 1-24 will be under examination. Applicant respectfully requests that the Examiner reconsider this application in view of the following remarks.

Specification Objections

The Examiner objects to the Abstract on two grounds. First, he requests that the Abstract be rewritten in narrative format and not merely recite the same language as the claim. See the Office Action, page 2, lines 3-14. Applicant has complied. Second, he requests that the abstract be corrected to recite “i, ii, iii, and iv,” instead of “v, vi, vii, and viii.” Applicant has made the requested changes.

The Examiner also sets forth guidelines as to how to lay out a specification and suggests that Applicant follows them. See the Office Action, page 2, line 19 through page 3, line 22. Applicant has amended the Specification to include section headings.

Claim Objection

The Examiner objects to claims 12-14, 16, and 18 for informality. More specifically, the Examiner points out several inadvertent errors and provides suggestions for their correction. See the Office Action, page 3, lines 24-28. Applicant has corrected these errors accordingly.

Rejection under 35 U.S.C. § 112, 2nd paragraph

The Examiner rejects claims 1-18 for indefiniteness. See the Office Action, page 7, lines 8-9. More specifically, the Examiner rejects claim 1 on the ground that “the surface of the model” has insufficient antecedent basis and it is unclear which surface of the model is being referred to. See the Office Action, page 4, lines 6-8. Applicant has amended claim 1 to recite “a surface of the model” instead. Applicant would like to point out that a skilled artisan would know that the term “a surface” refers to any surface of the model.

The Examiner also rejects claim 9 on a second ground. It is the Examiner’s position that “the granulation P80” recited therein does not have sufficient antecedent basis and also the meaning of the recitation is unclear. See the Office Action, page 4, lines 9-11. Applicant has amended this claim to remove this recitation.¹

The Examiner also rejects claims 5-7, 9, 11, 16, and 18 as indefinite on an additional ground. According to the Examiner, it is unclear what is meant by the phrases “preferably” (recited in claims 5-7 and 9) and “in particular” (recited in claims 11, 16, and 18). See the Office Action, page 5, lines 1-21. Applicant has removed the two phrases at issue and their related contexts from these seven claims.²

Rejection under 35 U.S.C. § 103

The Examiner rejects claims 1-18 as obvious over Jansson, U.S. Patent No. 4,231,982 (“Jansson”), in view of Weiss et al., U.S. Patent No. 5,079,943 (“Weiss”). See the Office Action, page 6, lines 9-10. Among the rejected claims, only claim 1 is independent.

Claim 1, as amended, covers a process for the manufacture of a tool and a prototype starting from a model, including, among others, a step of applying, by a

¹ New claim 21 recites “that the blasting agent is silicone carbide with a granulation of P80.” Applicant would like to point out that it is well known in the art that P80 refers to the grit of the blasting agent (silicone carbide here). See “Exhibit A” co-filed herewith.

² The amendments to claims 5-6, 9, 11, 16, and 18 has necessitated addition of new claims 19-24.

chemical reduction process, an intermediate layer of copper or nickel to a surface of a model.

The Examiner correctly points out that Jansson describes a method for the manufacture of tools. According to the Examiner, this process involves “providing a surface of [a] working model 10 [] such that the surface of the working model 10 is provided with a **thermal sprayed metal** layer 12.” See the Office Action, page 6, lines 15-17; emphasis added. In other words, the Jansson method uses a **thermal spraying process** to apply a metal onto a surface of a model, NOT a **chemical reduction process** as required by amended claim 1.

Applicant now turns to Weiss. This reference describes a method for forming a sprayed metal die. See the Abstract. As correctly pointed out by the Examiner, in the Weiss method a metal coating is applied onto a substrate by a **thermal spraying process**. See the Office Action, page 7, lines 10-12. Clearly, Weiss, also using a **thermal spraying process**, does not cure Jansson of its deficiency.

In sum, both the Jansson and Weiss methods require using a **thermal spraying process** for applying a metal onto a surface of a model. Thus, a combination of these two references do not teach, let alone suggest, applying a metal by a **chemical reduction process** onto a surface of a model, as required by claim 1. In other words, claim 1 is not rendered obvious by the combination of Jansson and Weiss. Nor are claims 2-18 dependent from claim 1.

New claims

Applicant has added six new claims, i.e., claims 19-24. These claims all depend indirectly from claim 1. Thus, for the reasons set forth above, they are patentable over Jansson and Weiss, either alone or in combination.

CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement

Applicant(s) : Hartmut Sauer
Serial No. : 10/553,356
Filed : October 14, 2005
Page : 11 of 11


Attorney Docket No.: 68001-008US1
Client Ref. No.: 204/04010US

with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

The excess claims fee in the amount of \$312 and the Petition for Extension of Time fee in the amount of \$130 is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to Deposit Account No. 50-4189, referencing Attorney Docket No. 68001-008US1.

Respectfully submitted,

Date: 12-22-08


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EXHIBIT A

FastTrack Belts



Merit FastTrack belts are specifically engineered to Merit belts have been developed with one simple goal in mind: to provide you economically priced products that help lower your processing cost while meeting or exceeding your targets for part quality and productivity. The abrasives used in Merit products are made with the most advanced ceramic seeded-gel, aggressive zirconia alumina, versatile aluminum oxide and super strong silicon carbide grain to meet a wide range of applications.

WOODWORKING CLOTH BELTS

Zirconia Alumina Cloth Open Coat Y-Weight

KY685 36, 50, 80-120 Grit Range **Narrow and Wide Belts**
Zirconia alumina abrasive with Y-weight cotton backing for finishing wood and non-metallic materials. Open coat.

Aluminum Oxide Cloth Open Coat X-Weight

KX395 60-220 Grit Range **Narrow and Wide Belts**
Aluminum oxide abrasive with X-weight cotton backing for finishing of wood and non-metallic materials. Open coat.

Silicon Carbide Cloth X-Weight

KX875 24, 36-220 Grit Range **Narrow and Wide Belts**
Silicon carbide abrasive with X-weight cotton backing for general purpose sanding on non-ferrous materials.

WOODWORKING PAPER BELTS

Aluminum Oxide Paper F-Weight

P55FOP P80-P220 Grit Range **Narrow and Wide Belts**
P-graded aluminum oxide abrasive with F-weight backing and antistatic coating. Open coat.

P55F P80-P220 Grit Range **Narrow and Wide Belts**
P-graded, aluminum oxide abrasive with F-weight paper backing for metalworking and woodworking.

METALWORKING CLOTH BELTS

Ceramic Alumina Cloth Y-Weight

SY965 36-120 Grit Range **Narrow and Wide Belts**
Ceramic alumina abrasive with heavy-duty Y-weight polyester backing for finishing exotic alloys. Waterproof.

Zirconia Alumina Cloth Y-Weight

SY603 24, 36-120 Grit Range **Narrow and Wide Belts**
Zirconia alumina abrasive with Y-weight polyester backing and a grinding aid for weld removal and finishing of hard-to-grind materials. Waterproof.

SY695 24, 36-80 Grit Range **Narrow and Wide Belts**
Zirconia alumina abrasive with heavy-duty Y-weight polyester backing for weld removal and finishing ferrous and non-ferrous materials. Waterproof.

X-Weight

SX695 60-220 Grit Range **Narrow and Wide Belts**
Zirconia alumina abrasive with X-weight polyester backing for weld removal and finishing ferrous and non-ferrous materials. Waterproof.

Aluminum Oxide Cloth Y-Weight

SY395 24, 36-120 Grit Range **Narrow and Wide Belts**
Heat-treated aluminum oxide abrasive with heavy-duty Y-weight polyester backing for weld removal and finishing ferrous and non-ferrous materials. Waterproof.

X-Weight

SX395 P60-P240, P320, P400 Grit Range **Narrow and Wide Belts**
P-graded, heat-treated aluminum oxide abrasive with X-weight polyester backing for weld removal and finishing ferrous and non-ferrous materials. Waterproof.

KX375 36-240, 320 Grit Range **Narrow and Wide Belts**
Aluminum oxide abrasive with X-weight cotton backing for general purpose sanding of ferrous and nonferrous materials.

J-Weight

KJ375 P80-P320, P400, P600 Grit Range **Narrow Belts**
P-graded aluminum oxide abrasive with J-weight cotton backing for general purpose sanding of ferrous and non-ferrous materials where a more flexible backing is needed.

KF376J P80-P320, P400, P600 Grit Range **Narrow Belts**
P-graded, heat-treated aluminum oxide abrasive with ceramic coating with a very flexible J-weight cotton backing for use wherever flexibility and conformability are needed.

Belt Specifications

METALWORKING									
PRODUCT	SHAPE AVAILABILITY	GRIT SIZE	ABRASIVE GRAIN	BACKING	JOINT	FLEX	FEATURES	MARKETS	APPLICATIONS
SY965	Narrow, Wide	36-120	Ceramic	Y-wt. poly.	BT	RR	stiff, durable backing; fast/long life	metal fab, foundries, furniture and production cabinet manufacturing	offhand grinding, wide belt metal and wood, automatics
SY603	Narrow, Wide	24-120	Zirconia	Y-wt. poly. w/grinding aid	BT	RR	stiff, durable backing; fast/long life	metal fab, foundries, furniture and production cabinet manufacturing	offhand grinding, wide belt metal and wood, automatics
SY695	Narrow, Wide	24-80	Zirconia	Y-wt. poly.	BT	RR	stiff, durable backing	metal fab, hand tools, aluminum foundries	any narrow or wide belt metal application
SX695	Narrow, Wide	60-220	Zirconia	X-wt. poly.	BT	RR	semi-flexible backing; fast cut	metal fab, hand tools	offhand grinding and blending, centerless grinding
SY395	Narrow, Wide	24-120	Aluminum Oxide	Y-wt. poly.	BT	RR	stiff, durable bkg.; versatile abrasive	metal fab, hand tools, foundries	offhand, conveyor, centerless and platen grinding
SX395	Narrow, Wide	P60-P240, P320, P400	Aluminum Oxide	X-wt. poly.	BT	RR	semi-flexible backing, versatile abrasive	metal fab, hand tools	intermediate grinding and blending offhand
KX375	Narrow, Wide	36-240, 320	Aluminum Oxide	X-wt. cotton	BT	RR	standard flexible backing; versatile abrasive	metal fab, MRO	MRO applications
KJ375	Narrow	P80-P320, P400, P600	Aluminum Oxide	J-wt. cotton	BT	TF	flexible backing; versatile abrasive	metal fab, furniture, MRO	polishing, profile sanding, blending
KF376J	Narrow	P80-P320, P400, P600	Aluminum Oxide	J-wt. cotton w/grinding aid	BT	TF	very flexible backing; long life	aerospace, metal fab, MRO	polishing exotic alloys, blending
WOODWORKING									
PRODUCT	SHAPE AVAILABILITY	GRIT SIZE	ABRASIVE GRAIN	BACKING	JOINT	FLEX	FEATURES	MARKETS	APPLICATIONS
KY685	Narrow, Wide	36, 50, 80-120	Zirconia	Y-wt. cotton	BT	RR	moderately stiff backing; open coat	furniture, cabinet shops	narrow and wide belt sanding of wood
KX395	Narrow, Wide	60-220	Aluminum Oxide	X-wt. cotton	BT	RR	standard flexible bkg.; open coat	furniture, wood cabinets	narrow and wide belt woodworking
KX875	Narrow, Wide	24-220	Silicon Carbide	X-wt. cotton	BT	RR	standard flexible backing	glass fabrication, nonferrous metals	glass edging and blending, brass polishing
P55FOP	Narrow, Wide	P80-P220	Aluminum Oxide	F-wt. paper	CJ	CF to 37" RR > 37"	strong paper bkg.; open coat; anti-static	furniture, wood cabinets	wide and narrow belt sanding of hardwoods
P55F	Narrow, Wide	P80-P220	Aluminum Oxide	F-wt. paper	CJ	CF to 37" RR > 37"	strong paper backing	furniture, wood cabinets	wide and narrow belt sanding of hardwoods

Product Availability

- 1/2" to 1-1/2" widths available in 25" and greater lengths
 - 1-1/2" and greater widths available in 18" and greater lengths
- Note: 8" x 107" and 9" x 107" are not available under the FastTrack program

Lead-times

- 2 days for narrow belts (12" wide and less)
- 5 days for wide belts (>=14" up to 52" wide)

Order Information

- All belts are made-to-order
- Minimum quantity is 1 package
- Manufacturing leeway +10 / -20%

How to Order

Ordering is easy

- Include a full description of belt required, including:
 - quantity
 - size
 - specification
 - grit size

FASTTRACK PACKAGING STANDARDS

WIDTH	GRIT SIZE	BELTS/ PKG.	BELTS/ CASE
NARROW BELTS			
1/2" up to 1"	All	50	200
Over 1" up to 5"	All except*	10	50
Over 5" up to 9"	All	10	20
Over 9" up to 14"	All	10	10
*Exceptions:			
Over 1" up to 4"			
>109" up to 168"	50 & Coarser	25	50
lengths only	60 & Finer	50	50
WIDE BELTS			
Over 14" up to 20"	50 & Coarser	5	10
	60 & Finer	10	10
Over 20" up to 52"	36 & Coarser	2	2
	40 - 80	3	3
	100 & Finer	5	5